

8. Process according to Claim 1, characterized in that the object is irradiated by several laser diodes.

11. Process according to Claim 1, characterized in that the images or phase images of the object are recorded by a hand-held sensor (2).

12. Process according to Claim 1, characterized in that a disrupted image or phase image, or the differential formed therefrom, is precluded from the evaluation stage.

15. Process according to Claim 1, characterized in that the recorded images or phase images or the differentials formed therefrom, is visualized as a film.

16. Process according to Claim 1, characterized in that timeframes or phases of the deformation can be compared with one another.

17. Process according to Claim 1, characterized in that the whole-body deformation or an undesired deformation is subtracted from the total deformation.

19. Process according to Claim 17, characterized in that the subtraction of the whole-body deformation or undesired deformation from the total deformation in the images or phase images is performed prior to formation of the sum of the differentials between the images or phase images.

23. Apparatus according to Claim 20, characterized by a device for determining phase images from the recorded images.

24. Apparatus according to Claim 20, characterized in that the measuring device encompasses a source for coherent radiation or coherent light or partially coherent radiation or partially coherent light.